

# Transitivity, Ecology and the Emergence of Verbal Periphrasis in Ancient Greek

Klaas Bentein  
*Ghent University*

## Abstract

In this article, I discuss the emergence of verbal periphrasis with εἰμί “I am” and ἔχω “I have” and a perfect, present or aorist participle in Archaic and Classical Greek. Adopting a so-called ‘ecological’ perspective, I argue for the importance of looking at the interrelationship between the periphrastic constructions in terms of their origins and development, drawing particular attention to the mechanism of ‘intraference’. I relate their semantic development to the notion of ‘transitivity’ (in a generalized, gradual sense) and show that ἔχω with aorist participle, εἰμί with perfect participle and εἰμί with present participle became used in increasingly more transitive contexts, a process which I propose to call ‘transitivization’. Somewhat tentatively, I suggest that this notion can also be used to describe the semantic development of periphrasis in general, first having occurred in the domain of perfect aspect, afterwards in that of imperfective aspect and only in a final stage in that of perfective aspect.

## Keywords

Ancient Greek, participial periphrasis, diachrony, transitivity, ecology

## 1. INTRODUCTION

While Ancient (especially Archaic/Classical) Greek is commonly considered a ‘synthetic’ language,<sup>1</sup> it cannot be denied that in the course of time it developed a set of periphrastic constructions, most prominently with the verbs εἰμί “I am” and ἔχω “I have” (accompanied by a (active/middle/passive) perfect, present or aorist participle): on many occasions we encounter expressions such as κατεσκευασμένοι εἰσὶν (Xen., *Cyr.* 5.5.9) “they are equipped”, ἦν γινόμενα (Hdt. 1.146.3) “it was happening” or ἀτιμάσας ἔχει (Soph., *Ant.* 22) “he has dishonored”. As Gildersleeve (1980[1900]:122) already recognized, “the Greek language has ample facilities for a large number of periphrastic tenses. With its many participles and its various auxiliaries, the possible combinations are almost inexhaustible”.

While substantial progress has been made in clarifying the diachronic development of periphrasis with εἰμί and ἔχω (see especially the landmark studies of Björck 1940, Aerts 1965 and Dietrich 1973a),<sup>2</sup> these constructions have mostly been studied as isolated entities, with little to no attention being paid to how their origins and development may be interrelated

(compare Vincent 1982:71 on Latin). Aerts (1965:36) did raise the possibility of an interrelationship, in suggesting that the construction of εἰμί with perfect participle may have had an ‘exemplary role’ for the construction of εἰμί with present participle. Regrettably, however, he did not further explore this suggestion, which had been quite forcefully denied by Björck (1940:99) at an earlier time: “durch die Nichtberücksichtigung der Perfektperiphrase wird unsere Untersuchung nicht gefährdet, denn der am wenigsten gebrauchte Tempusstamm kann auf das Präsens und den Aorist in keinem nennenswerten Masse vorbildend gewirkt haben”. In this article, I will argue that taking into consideration such relations (including the synthetic tenses) is critical for a proper understanding of the history of verbal periphrasis (with εἰμί and ἔχω) in Ancient (Archaic/Classical) Greek.

The perspective adopted here towards language and its evolution can be called ‘ecological’ (see e.g. Nettle 1999, Mufwene 2001, 2008 and Garner 2004),<sup>3</sup> a term which stresses that every linguistic ‘item’<sup>4</sup> (such as a periphrastic construction) always evolves in a particular *context* or *environment*. The ecology of language can be considered from two (complementary) angles, called ‘internal’ and ‘external’. Language-external ecology has to do with factors such as language contact and the socio-cultural setting in which the language is used. Language-internal ecology, which will be of particular concern to us here, refers to factors that lie more narrowly within the language itself. This includes linguistic variation (e.g. the impact of the removal/insertion/modification (of the role) of a variant on the distribution of the other variants; Mufwene 2001:22), semantic/functional, morpho-syntactic or phonological relatedness between linguistic items (e.g. the gradual spread of a morphological innovation, from one phonological environment to another), or more broadly the relationship between different ‘subsystems’ of the language (e.g. the impact of sound change on morphology).

In the context of language-internal ecology, it is worth noting that recent diachronic linguistic research (see e.g. Croft 2000:148-56) has recognized ‘intraference’ as one of the main causal mechanisms for linguistic innovation, next to mechanisms such as ‘form-meaning reanalysis’, involving a reanalysis of the ‘mapping’ between form and meaning (e.g. the ‘be going to’-construction in examples such as ‘[I am going] [to buy cake]’, whereby the semantic feature of future intention may be analyzed as inherent in the construction and that of spatial motion dropped: ‘[I am going to buy cake]’), and ‘interference’, involving an *inter*-lingual identification between semantically/functionally similar forms in two languages (as in English ‘it goes without saying’, borrowed from French ‘il va sans dire’ (Croft 2000:145), with ‘il’ = ‘it’, ‘va’ = ‘goes’, ‘sans’ = ‘without’ etc.). Intraference is comparable to interference, in that

an *intra*-lingual identification is made between semantically/functionally similar forms. Examples of this process can be observed in everyday language when parts of fixed phrases are consciously or unconsciously elaborated by novel items: in a sentence such as ‘get these little gnomes off my life!’, for example, the fixed phrase ‘get x off my back’ has been blended with ‘get x out of my life’, leading to the novel ‘get x off my life’ (example borrowed from [www.bgsu.edu/departments/english/linguistics/slips/](http://www.bgsu.edu/departments/english/linguistics/slips/)). Such innovative expressions mostly remain unsuccessful, though occasionally they may become propagated, for example because they sound amusing.

So as to be able to describe the semantics of the periphrastic constructions under analysis (or, perhaps more correctly, the clauses containing these periphrastic constructions),<sup>5</sup> I make use of the notion ‘transitivity’. To be more specific, I will refer to what Lazard (2002:142) calls ‘generalized’, gradual transitivity, and contrasts with ‘restricted’, traditional transitivity. The latter of these notions, traditional transitivity, is morpho-syntactically defined, on the basis of the presence of two syntactic arguments in the clause (expressed in the nominative and accusative case in Ancient Greek): transitivity is considered a yes-or-no property, as in ‘he was walking’ (*intransitive*) versus ‘he bought the car’ (*transitive*). Gradual transitivity, on the other hand, is defined on semantic/pragmatic grounds. Transitivity is considered a scalar property, with clauses being *more* or *less* transitive (rather than transitive versus intransitive), that is, corresponding more or less to the prototypical transitive clause. While there has been some disagreement in the literature as to the formulation of the transitive prototype, scholars generally agree that the prototypical transitive clause describes an event which involves an ‘agent’ who acts volitionally, performing a concrete dynamic action, with a perceptible, lasting effect on a specific ‘patient’ (Naess 2007:15). Compare, for example, ‘John killed his neighbor last night’ (indicative of high transitivity) with ‘Elisa is Polish’ (indicative of low transitivity): while the former clause denotes an event which is located at a specific point in time (‘last night’), with an agent (‘John’) and an affected animate patient (‘his neighbor’), the latter denotes a state of indefinite duration (‘to be Polish’), without any agent or (affected) patient. The most detailed analysis of the transitive prototype has been conducted by Hopper & Thompson (1980), who propose to break it down in ten component parameters.<sup>6</sup> I will refer to Hopper & Thompson’s (1980) component parameters at several points in this article.

## 2. VERBAL PERIPHRAISIS WITH εἰμί AND ἔχω IN ARCHAIC AND CLASSICAL GREEK

### 2.1. Archaic Greek (VIII – VI BC)

#### 2.1.1. εἰμί with perfect participle: ‘exploratory’ expression

Periphrastic constructions first appear in the functional domain of perfect aspect: the construction of εἰμί with perfect participle is the only one that is attested with some frequency in Archaic Greek (Bentein 2012a:30 mentions 38 examples for Homer). Similarly to the synthetic perfect, it appears in clauses with low transitivity (i.e. with a non-volitional subject, mostly without any object, denoting a state; compare Chantraine 1927:4-20), with an aspectual function<sup>7</sup> that is known in cross-linguistic works on tense and aspect as ‘resultative’.<sup>8</sup> An example is given in (1):

(1) αἶ γὰρ τοῦτο, ξεῖνε, ἔπος τετελεσμένον εἴη (Hom., *Od.* 17.163)<sup>9</sup>

“ah, stranger, if your word could only be fulfilled” (my translation)

It should be pointed out that we can hardly speak of a ‘grammaticalized’<sup>10</sup> periphrastic construction at this stage of the language (compare Bentein 2012a:13, who speaks of an ‘exploratory expression’). In examples such as (1), the lexical value of εἰμί could be called ‘copulative’, as the participle expresses an adjective-like quality. Moreover, as noted by Keil (1963:44), the construction seems to have a ‘formulaic’ character, as more than half of the examples occur with the (passive) perfect participle of the verb τελέω “I accomplish”.<sup>11</sup>

It is worth mentioning, however, the existence of a number of cases where the periphrastic construction occurs in more transitive contexts,<sup>12</sup> with a less stative-like value (which is not to say that a resultative interpretation is entirely excluded). Consider example (2) (for similar examples, see Hom., *Il.* 6.488; Hymn. Hom., *In Ven.* 157-8):

(2) τὸν ἀνὴρ κακὸς ἐξαλάωσεν / σὺν λυγροῖς ἐτάροισι δαμασσάμενος φρένας οἴνω, / Οὐτίς, ὃν οὐ πό φημι πεφυγμένον εἶναι ὄλεθρον (Hom., *Od.* 9.453-5)

“(the eye of your master) which an evil man blinded along with his miserable fellows, when he had overpowered my wits with wine, Nobody, who, I tell you, has not yet escaped destruction” (tr. Dimock-Murray)

In this example the periphrastic infinitive πεφυγμένον εἶναι “to have escaped” is accompanied by a (non-affected) accusative object, ὄλεθρον “destruction”, rendering the clause less stative-like.

Interestingly, similar cases are attested with the synthetic perfect (cf. Slings 1994:241-3; Duhoux 2000:426-30), which was also predominantly used with a resultative function in Archaic Greek (as in πολλοὶ τεθνᾶσι (Hom., *Il.* 7.328) “many are dead”). Similarly to what we have observed in (2), in an example such as οὐ πω τοιόνδε τοσόνδέ τε λαὸν ὄπωπα (Hom., *Il.* 2.799) “never yet have I seen an army like this in quality and size” (tr. Wyatt-Murray) the perfect form is combined with a (non-affected) accusative object.

### 2.1.2. Other combinations of εἶμι or ἔχω and a participle

In Archaic Greek we find a number of examples where εἶμι is combined with a present or aorist participle (see e.g. with the present participle: *Il.* 11.722, *Od.* 7.125-6, 17.157-9; with the aorist participle: *Il.* 5.177, 5.191, 13.764). While in general these are either clearly non-periphrastic or ambiguous (see §2.1.3 below), in (3) we may be dealing with a genuine periphrastic example,<sup>13</sup> where εἶμι with present participle has a ‘progressive’ aspectual function, denoting an event that is ongoing at the time of speaking:<sup>14</sup>

(3) ἡμῖν δ’ εἴνατός ἐστι περιτροπέων ἐνιαυτός / ἐνθάδε μιμνόντεσσι (Hom., *Il.* 2.295-6)

“but for us it is the ninth year that is turning, and we are still here” (tr. Wyatt-Murray, modified)

Combinations of ἔχω and the aorist participle are infrequently attested in Archaic Greek. In Homer, they are limited to the expression ἐλὼν ἔχει(ς) γέρας “having taken the prize, he (you) has (have) it” (see Hom., *Il.* 1.356, 1.507, 2.240, 9.111), where ἔχω maintains its possessive value. Another example sometimes referred to is given under (4):

(4) κρύψαντες γὰρ ἔχουσι θεοὶ βίον ἀνθρώποισιν (Hes., *Op.* 42)

“for the gods keep hidden from men the means of life” (tr. Evelyn-White)

As indicated by Thielmann (1891:297) as well as Evelyn-White’s translation, in this example ἔχω may be taken with the value of “to keep”, “to hold” (rather than denoting prototypical possession). Its combination with the aorist participle expresses a resultative-like value, indicating the state of the object (βίον): “the Gods keep/hold the means of life hidden” (more literally “having hidden the means of life, the Gods keep/hold them [in a hidden state]”).<sup>15</sup> Thielmann (1891:297) makes the comparison with the more common Latin expression of the type (*id*) *absconditum habeo*, to which I will return in the next section.

### 2.1.3. Source constructions

While most authors have paid little to no attention to the ambiguous examples with εἰμί and ἔχω mentioned under §2.1.2, I believe they are not entirely without interest, as they reveal the syntactic contexts from which periphrastic constructions may develop (for which, see §2.2 and §2.3). On the basis of the Archaic evidence, we can distinguish between two main source constructions:

#### 1. The copulative construction:

As mentioned in §2.1.1, the value of εἰμί when combined with a perfect participle (with a resultative function) comes close to that of a copula. It seems likely that such cases have come about through an extension of the regular adjective to the perfect participle, forming an instance of the earlier mentioned process of *intraference*. Confirmation for this is found in examples where the perfect participle is co-ordinated with a true adjective, as in (5):

(5) λευγαλέοι τ' ἐσόμεσθα καὶ οὐ δεδαηκότες ἀλκίην (Hom., *Od.* 2.61)

“we will be feeble and ignorant of battle” (tr. Dimock-Murray, modified)

#### 2. The locational construction with a conjunct participle:

A second source construction is that where εἰμί is combined with a conjunct participle<sup>16</sup> and maintains a more substantive, lexical value. Consider the following three examples; the value of εἰμί in (6) can be described as possessive, in (7) as locative and in (8) as existential:

(6) ἀλείψατο δὲ λίπ' ἐλαίῳ / ἀμβροσίῳ ἐδανῶ, τό ρά οἱ τεθυωμένον ἦεν (Hom., *Il.* 14.171-2)

“she (Hera) anointed herself with an oil which was rich, divine and sweet, which she had all perfumed” (my translation)

(7) ἀλλ' ὅτε δὴ ῥ' ἴκανον ὅθι ξανθὸς Μενέλαος / βλήμενος ἦν (Hom., *Il.* 4.210-1)

“and when they had come where tawny-haired Menelaus lay wounded” (tr. Wyatt-Murray)

(8) ἔστι δὲ τις ποταμὸς Μινυήϊος, εἰς ἅλα βάλλων / ἐγγύθεν Ἀρήνης (Hom., *Il.* 11.722-3)

“there is a river Minyeïus that empties into the sea near Arene” (tr. Wyatt-Murray)

It may be clear that these uses of εἰμί are closely related: following Clark (1978), I refer to the superordinate construction with the term ‘locational construction’. Anticipating the discussion in §2.2, I suggest that *form-meaning reanalysis* of the locational construction accompanied by a conjunct participle, possibly in combination with *intraference* (see below

for further details), led to certain types of periphrasis (as in (8): ‘there is a river that empties’ > ‘a river is emptying’).<sup>17</sup>

As for ἔχω with aorist participle (periphrastic examples of which can be found in Classical Greek, as in ἀτιμάσας ἔχει (Soph., *Ant.* 22) ‘he has dishonored’), I believe its origins can also be categorized under this second source construction, more specifically the possessive subtype. As we have already seen, expressions such as ἔλὼν ἔχει γέρας consist of possessive ἔχω and a conjunct participle, rendering them very similar to examples of εἰμί with a possessive dative and a conjunct participle (as in (6)).<sup>18</sup> Again in anticipation of the discussion in §2.2, I suggest that form-meaning reanalysis, possibly in combination with intraference (see below for further details), led to the periphrastic use of the construction (e.g. ‘he has it, having taken it’ > ‘he has taken it’).

The similarity observed here between the origins of constructions with εἰμί and ἔχω goes against a general trend observed in cross-linguistic works on tense and aspect, in which the origins of HAVE-perfects (mostly in the European languages) are typically traced back to a somewhat different source construction (see e.g. Maslov 1988:73-4): in phrases such as Latin *multa bona bene parta habemus* (Pl., *Trin.* 347) ‘we have many goods properly acquired’, Old English *ðonne hæbbe we begen fet gescode suiðe untælllice* (Bede 4 23.328.6; example borrowed from Denison 2000:112) ‘then we have both feet shod very blamelessly’, or Old High German *phîgboum habêta sum giflanzôtan* (Tatian 102.2; example borrowed from Heine & Kuteva 2006:156) ‘he had a fig tree planted’,<sup>19</sup> the verb HAVE can also be related to possession, but the (perfect) participle is always passive and agrees with the object, rather than the subject of the clause.<sup>20</sup> Surprisingly, it has never been (explicitly) noticed that HAVE-perfects in Ancient Greek go against this general trend.<sup>21</sup>

Concluding this section, I would like to stress the close interrelationship of the syntactic contexts from which periphrastic constructions with εἰμί and ἔχω may develop: I have argued that these can be reduced to two main types, that is, the copulative construction and the locational construction accompanied by a conjunct participle. Of these two source constructions, the latter can be considered the more transitive environment, as the subject is explicitly situated: in (6) the oil is situated as in the possession of Hera, in (7) Menelaos is situated in a certain place on the battlefield, and in (8) the river is situated as existent (in a not further specified place).<sup>22</sup> From this perspective, it should not surprise us that the more transitive uses of periphrastic constructions (e.g. εἰμί with perfect participle or ἔχω with aorist

participle expressing the current relevance of a past event; εἰμί with present participle expressing an ongoing event) can be related to the locational construction (see below).

## 2.2. Fifth-century Classical Greek

### 2.2.1. *Periphrasis and the perfect*

As noted in §2.1.1, periphrasis first appears in the functional domain of perfect aspect, and this is also the area where we find the first major expansion of the periphrastic tenses. This applies to εἰμί with perfect participle in particular, for which Bentein (2012a:16) mentions little over 200 examples in the major fifth-century authors, most of which 3SG/PL (around 90%). In comparison with Archaic Greek, the construction is still used predominantly with a resultative aspectual function, with the participle expressing an adjective-like value, as in οἱ προμαχεῶνες ἡνθισμένοι εἰσὶ φαρμάκοισι (Hdt. 1.98.6) “the battlements are painted with colors”; (αἱ πύλαι) ἦσαν ἀνεωγμέναι (Thuc. 2.4.3) “(the gates) were open(ed)”; χούτος τεθνηκὼς ἦν (Soph., *Phil.* 435) “he too was dead”. It should be stressed, however, that the construction has increased quite dramatically in productivity: it is now used with a much larger number of different (telic)<sup>23</sup> content verbs. Moreover, contrary to Archaic Greek, where half of the examples occur with the verb τελέω “I accomplish”, the construction no longer has a ‘formulaic’ character.

To explain this considerable increase in frequency of εἰμί with perfect participle, we must adopt an ecological perspective, and turn our attention to the interaction between the synthetic and the periphrastic perfect, and (morpho-)phonology and syntax. To be more specific, in the formation of 3PL of the medio-passive synthetic perfect and pluperfect (endings -νται, -ντο) of consonant-final root verbs, there was a consonantal accumulation (e.g. of the verb τρέπω “I turn” > \*tetprḗtai). Initially, this led to the (regular) vocalization of the nasal phoneme in interconsonantal context, resulting in the endings -αται, -ατο (e.g. τετράφαται). As noted by Chantraine (1991[1945]:306), however, in fifth-century Attic Greek these alternative desinences (i.e. -αται, -ατο) fell into disuse, and periphrastic εἰμί with perfect participle was adopted as an alternative formation (in other words, it was drawn into the inflectional system).

In the domain of perfect aspect, yet another periphrastic construction became much more frequently employed, that is, ἔχω with aorist participle (also known as the ‘σχῆμα Ἀττικόν’ or ‘σχῆμα Σοφοκλείων’; Thielmann 1891 and Aerts 1965 mention around eighty examples, various of which ambiguous). Interestingly, the rise of this periphrasis came about in circumstances very similar to those of εἰμί with perfect participle. We must turn our attention to the synthetic perfect, which in fifth-century Classical Greek itself underwent a semantic



development, that is, from resultative to anterior (cf. Haspelmath 1992). As shown in (9), it now came to be used in more transitive contexts, that is, with a subject acting as an agent (Ἐρατοσθένης) and an affected object (τὴν σὴν γυναῖκα ... καὶ ἄλλας πολλὰς “your wife as well as many others”), denoting an event (or rather, multiple events) which took place in the past and has (have) current relevance (διέφθαρκεν “he debauched”):<sup>24</sup>

(9) «ἔστι δ'» ἔφη «Ἐρατοσθένης Ὁῦθεν ὁ ταῦτα πράττων, ὃς οὐ μόνον τὴν σὴν γυναῖκα διέφθαρκεν ἀλλὰ καὶ ἄλλας πολλὰς» (Lys. 1.16)

“‘it is,’ she said, ‘Eratosthenes of Oe who is doing this; he has debauched not only your wife, but many others besides’” (tr. Lamb)

As noted by Haspelmath (1992:213), this semantic development entailed an increase in lexical generality: any verb could now occur in the perfect (resultatives typically being restricted to telic content verbs), which in the active voice of perfects with stem endings in vowels, liquids or nasals (Kimball 1991:142) came to be signaled by the suffix -κ-.<sup>25</sup> In this context, various scholars have suggested that the construction of ἔχω with aorist participle functioned as an alternative anterior perfect formation for transitive verbs “of which there is no perfect active whatsoever, or of which the perfect active only came into being in or after the fifth century BC” (Aerts 1965:129; compare Thielmann 1891:302-3;<sup>26</sup> Keil 1963:49; Slings 1994:244; Drinka 2003a:111).<sup>27</sup> While I subscribe to this view, which as Aerts (1965:129) notes, has the advantage of explaining the decline of the periphrastic construction in the fourth century BC (see §2.3.1), it should be kept in mind that (a) the construction can also be found with verbs which did have a synthetic perfect (Thielmann 1891:303; Rijksbaron 2006:130)<sup>28</sup> and (b) the periphrastic construction itself underwent a semantic evolution, traces of which are still clearly visible in fifth-century Classical Greek.

The latter point seems to have escaped the attention of some scholars. To claim, as Drinka (2003b:13) does, that fifth-century ἔχω (when combined with the aorist participle) can be considered a ‘full-fledged auxiliary’ is an oversimplification.<sup>29</sup> What we find is a gradual shift in emphasis from the finite to the non-finite verb, whereby ἔχω loses its possessive meaning, and the accusative object starts to be taken with the participle rather than the finite verb (Moser 1988:237-8). Traces of this evolution can be found on various levels. Syntactically, for example, we find various examples where the object follows the finite, rather than the non-finite verb (e.g. Aesch., *Sept.* 947 ἔχουσι μοῖραν λαχόντες “they have their portion of misery, having obtained it by lot”; compare with English “I have it done”, versus “I have done

it”), complicating periphrastic interpretation. Lexically, we find that many aorist participles are based on verbs meaning ‘to take’, ‘to receive’, ‘to acquire’, in accordance with the originally possessive meaning of ἔχω. In Herodotus, for example, the construction is often used with verbs such as δέω “I bind”, καταστρέφομαι “I subdue”, κτάομαι “I acquire” or λαμβάνω “I take”. However, other verbs that are less narrowly connected to the notion of possession also start to be used (particularly in Sophocles), such as ἀπειλέω “I utter a threat” (τοῦτ’ ἀπειλήσας ἔχεις (Soph., *OC* 817) “you have uttered that treat”), ἐρωτάω “I ask” (τοῦτ’ ἐρωτήσας ἔχεις (Soph., *Trach.* 403) “you have asked this”), θαυμάζω “I wonder” (καὶ σοῦ δ’ ἔγωγε θαυμάσας ἔχω τόδε (Soph., *Phil.* 1362) “and here is something, moreover, I have wondered at in you” (tr. Ussher)) and προτίω “I honor” (τὸν μὲν προτίσας ἔχει (Soph., *Ant.* 22) “he has preferred in honor the one”). Finally, it is worth drawing attention to the use of the imperative mood in a number of examples (e.g. Soph., *Ant.* 77, τὰ τῶν θεῶν ἔντιμ’ ἀτιμάσας ἔχε “keep dishonored what the gods in honor have established”, roughly equivalent to \*ἡτιμησμένα ἔχε), which must be considered an older usage (compare our earlier example (4)), as it is only compatible with resultative semantics (a fact which has not been pointed out clearly by any of the previous works).<sup>30</sup>

It would seem that the constructions of εἰμί with perfect participle and ἔχω with aorist participle were functionally (and morphologically) quite complementary in fifth-century Classical Greek: the former is (mainly) used with a resultative aspectual function, in the third person, in the passive voice with transitive (in the traditional sense) verbs or in the active voice with intransitive (in the traditional sense) verbs, while the latter is (mainly) used with an anterior aspectual function, in all persons, in the active voice, with transitive (in the traditional sense) verbs. In reality, the distribution of these two constructions is somewhat less neat: the construction with ἔχω, for example, is also used with intransitive verbs (e.g. λήγω “I stop” in λήξαντ’ ἔχει (Soph., *OT* 731) “it has stopped”), in the passive voice (e.g. εἰ ἐς Ἀθηναίους εἶχε τὸ ἔπος εἰρημένον ἐόντως (Hdt. 7.143.1) “if these words had truly been uttered with regard to the Athenians”),<sup>31</sup> and there is even an exceptional example where the perfect participle is used (βεβουλευκὼς ἔχει (Soph., *OT* 701) “he has plotted”). Perhaps an even more important observation concerns the fact that the construction of εἰμί with perfect participle is also used with an anterior function, even in the active voice and with an accusative object, as in (10):

(10) ἐλθόντων δὲ αὐτῶν κατηγορία μὲν οὐδεμία προντέθη, ἡρώτων δὲ αὐτοὺς ἐπικαλεσάμενοι τοσοῦτον μόνον, εἴ τι Λακεδαιμονίους καὶ τοὺς ξυμμάχους ἐν τῷ πολέμῳ τῷ καθεστῶτι ἀγαθόν [τι] εἰργασμένοι εἰσίν (Thuc. 3.52.4)

“on the arrival of the judges no accusation was brought against them; they were simply asked one by one, Whether they had done any kind of service to the Lacedaemonians or to their allies in the present war” (tr. Jowett)

It is worth noting, however, that there does seem to be a semantic/pragmatic difference between the two constructions when used as an active anterior perfect. The construction of ἔχω with aorist participle is generally used in more transitive contexts than that of εἰμί with perfect participle: in the large majority of the cases we encounter an agent who acts volitionally, mostly upon an affected (animate) object, as in (11):

(11) τοὺς δὲ πρόσθεν εὐσεβεῖς / κάξ εὐσεβῶν βλαστόντας ἐκβαλοῦσ' ἔχεις (Soph., *El.* 589-90)

“you have cast out the earlier born, the pious offspring of a pious marriage” (tr. Jebb)

On the other hand, when the construction of εἰμί with perfect participle is used as an active anterior perfect, it either does not take an object, or when it does, the object is mostly inanimate and non-affected.<sup>32</sup> Moreover, in various cases (among others in (10)), the construction does not refer to a single past event with current relevance, but to the repeated occurrence of past events, rendering the clause less transitive.

These findings on the semantic difference between constructions with ἔχω and εἰμί are in accordance with recent cross-linguistic research on ‘split auxiliarization’ (i.e. the phenomenon whereby a language possesses both a HAVE- and a BE-perfect, as in Dutch, French, German, Italian etc.), which has demonstrated that across languages perfect auxiliary selection can be viewed “as semantically motivated in terms of prototype theory ... as a function of transitivity” (Shannon 1995:131, with transitivity in the generalized, gradual sense), HAVE being employed for prototypical transitive events, while BE for prototypical ‘mutative’ events (i.e. with intransitive verbs expressing a change of state or place). Such a transitivity-based perspective puts a controversial hypothesis by Pouilloux (1957) in a different light, who suggested that Sophocles would have coined the construction (or at least was the first to make frequent use of it) for stylistic purposes, that is, to denote responsibility (a ‘rupture of εὐκοσμία’, as Pouilloux puts it).<sup>33</sup>

To conclude this section, I would like to turn to a suggestion made by Bentein (2012a:23-7) with regard to the origins of εἰμί with perfect participle in its anterior function. Bentein suggests that this use may be traced back to the locational construction accompanied by a conjunct participle, more in particular the possessive<sup>34</sup> subtype (cf. our earlier observations in §2.1.3).<sup>35</sup> He argues that the interpretation of the periphrastic construction as an anterior is likely to have come about through form-meaning reanalysis of examples such as (12) (borrowed from Rijksbaron 2006:129), whereby the dative accompanying εἰμί was reinterpreted as the agent of the action expressed by the participle:

(12) ἦσαν τῷ Φάνῃ παῖδες ἐν Αἰγύπτῳ καταλελειμμένοι (Hdt. 3.11.2)

“Phanes had sons, left behind in Egypt” (my translation)

“Phanes had left behind sons in Egypt” (my translation)

Given the semantic relatedness of εἰμί + dative + (perfect) participle (with anterior aspectual function) and ἔχω + (aorist) participle (with anterior aspectual function), it is worth asking whether we might additionally be dealing with a case of intraference, that is, whether the reinterpretation of either of these two constructions could have been stimulated by that of the other. I would argue that such an analogical influence may have been exerted by the construction of ἔχω with aorist participle, given its frequency at an early stage. A similar observation has recently been made by Drinka (2003a:112), who claims that “the creation of a new HAVE perfect *entailed* the creation of a BE passive upon the old BE intransitive pattern”.

### 2.2.2. *Extending the use of εἰμί (and ἔχω?) to the imperfective domain*

Another major development in fifth-century Classical Greek concerns the use of εἰμί with present participle, for which the recent study of Bentein (2012b) records about one 150 examples (various of which ambiguous). In the majority of these cases the aspectual function of εἰμί with present participle can be called ‘stative’,<sup>36</sup> denoting a situation which remains more or less stable over time.<sup>37</sup> Unsurprisingly, such statives predominantly occur with lexically stative predicates, often with what Bentein (2012b:17) calls ‘verbs of lexicalized predication of properties’, as in ταῦτα μὲν καὶ ἔτι ἐς ἐμὲ ἦν περιέοντα (Hdt. 1.92.1) “these things remained (lit. were left over) even to my lifetime” and τάδ’ ἔστ’ ἀρέσκονθ’ (Soph., *OT* 274) “this is pleasing”. However, there are also several examples with lexically stative verbs which are less adjective-like, e.g. δεινὸν μὲν ἦν βάσταγμα κάισχύνην ἔχον (Eur., *Suppl.* 767) “it was a dreadful burden, involving some disgrace (lit. having shame)”; ἃ ἦν ὑπάρχοντα

ἐκείνῳ ἀγαθὰ (Lys. 13.91) “the wealth that was at hand for him”,<sup>38</sup> and there are even some where the participle is based on a lexically dynamic (i.e. non-stative) verb, as in ἔστι λόγος περὶ αὐτοῦ ἱρὸς λεγόμενος (Hdt. 2.48.3) “about this a sacred legend is told”; ἔστι δὲ αἰγυπτιστὶ ὁ Λίνος καλεόμενος Μανερῶς (Hdt. 2.79.2) “but in Egyptian Linus is called Maneros”. These last two examples are often classified as ‘generic’, and maintain a stative quality.

What is interesting is that the construction also came to be used in more transitive contexts, though still rather infrequently. Consider example (13):

(13) ταῦτα δὲ ἦν γινόμενα ἐν Μιλήτῳ (Hdt. 1.146.3)  
 “these things were happening at Miletus” (my translation)

Here, the aspectual function of ἦν γινόμενα “it was happening” can be described as ‘progressive’, denoting an ongoing event. In such cases, the content verb on which the participle is based is always lexically dynamic.<sup>39</sup>

As mentioned in the introduction, the affinity between the constructions of εἰμί with perfect participle and εἰμί with present participle was first noted by Aerts (1965:36), who suggests that the former construction may have had an ‘exemplary’ role for the latter. Regrettably, however, he does not further explain how we might conceive of this exemplary role. In my view, it may be considered twofold. Firstly, it is likely that we are again dealing with a case of intraference, whereby the use of the perfect participle with εἰμί was extended to that of the present participle: cases such as ἦσαν ἀνεωγμέναι (Thuc. 2.4.3) “they were opened”, next to those where εἰμί is combined with a regular adjective (cf. §2.1.3), may have set the example for the use of phrases such as τοῖς πλέοσιν ἀρέσκοντές ἐσμεν (Thuc. 1.38.4) “we are popular with the majority” (tr. Jowett). Less directly, the present participle may have come to be employed more frequently in the locational construction, with the earlier development of εἰμί with perfect participle stimulating its form-meaning reanalysis (cf. Bentein 2012b:22-3). An example of the present participle accompanying the locational construction (more in particular the locative subtype) is given in (14):

(14) ἦν δὲ περὶ Δαρεῖον ἀνὴρ Αἰγύπτιος φωνέων μέγιστον ἀνθρώπων (Hdt. 4.141.1)  
 “there was an Egyptian with Darius, shouting louder than everyone else” (tr. Godley, modified)

Secondly, and perhaps more importantly, the expansion of εἰμί with perfect participle in the fifth century BC (see above) must have stimulated the more frequent use of a second periphrastic construction with εἰμί in the domain of imperfective aspect. Given the predominance of examples with a resultative aspectual function, it should not surprise us that this influence primarily concerned εἰμί with present participle with a stative aspectual function (these two constructions being closely related from a semantic point of view). While this has never been explicitly suggested, I believe that εἰμί with perfect participle in its anterior aspectual function may have had a similar influence on εἰμί with present participle in its progressive aspectual function, though given its lower degree of frequency, its impact will undoubtedly have been smaller. At first sight, anterior and progressive constructions are semantically much less closely related than resultative and stative ones, both of which denote a property of the subject, with or without reference to a previous action of which this property is the result. However, from a more general, conceptual point of view, anterior and progressive are quite similar. Dik (1989:190), for example, classifies both progressive and (anterior) perfect under the heading of ‘phasal aspectuality’,<sup>40</sup> distinguishing between ‘inner phasal aspect’ (progressive) and ‘outer phasal aspect’ (perfect) (a distinction which will not further concern us here). What is more, similar suggestions with regard to the diachronic affinity of anterior and progressive have been made with regard to English. Polzenhagen (2008:240-1), for example, claims that the *have-perfect* form and the *be-going-to* form grammaticalized parallel to each other and considers them part of the same emerging conceptual category, which he terms ‘correlation’.

While imperfective aspect can be considered primarily the domain of the εἰμί-periphrasis (due to the lesser degree of semantic affinity between possession and stative/progressive aspect, compare note 34), it is interesting to note that a single example is attested where ἔχω is combined with a present participle to form a progressive, printed here under (15):

(15) ἐπεὶ σύ, μήτηρ, {ἐπὶ} δάκρυσι καὶ / γόοισι τὸν θανόντα πατέρα πατρίδα τε / φίλαν  
καταστένουσ’ ἔχεις, / ἐγὼ δ’ ἐπὶ γάμοις ἐμοῖς / ἀναφλέγω πυρὸς φῶς / ἐς αὐγάν, ἐς αἴγλαν  
(Eur., *Tro.* 315-21)

“since you, my mother, dedicated to tears and grief are lamenting for my father, who has died and our beloved fatherland, I for my own wedding must make this torch blaze and show its light” (my translation)

I would argue that again we are dealing with a (complex) case of intraference. On the basis of the semantic affinity between εἰμί with perfect participle and ἔχω with aorist participle, and the expansion of periphrastic εἰμί to the domain of imperfective aspect, Euripides has (consciously) coined an innovative construction whereby ἔχω is combined with the present participle. Both Thielmann (1891:301) and Dietrich (1973b:210) believe that the construction stresses the continuation of the act: “you are *continually* lamenting”.

### 2.2.3. εἰμί with aorist participle

One last construction which I would like to mention here is that of εἰμί with aorist participle. A first illustration of this uncommon construction is given in (16), where according to Aerts (1965:28-9) the use of the aorist periphrasis may have been motivated by avoidance of the (at this stage) uncommon perfect optative forms πεφηνώς εἴη, πεφασμένος εἴη and πεφήμενοι:

(16) οἱ δὲ ἔφραζον, ὥς σφι θεὸς εἴη φανεῖς διὰ χρόνου πολλοῦ ἐωθὼς ἐπιφαίνεσθαι (Hdt. 3.27.3)

“they (the rulers) explained him, that a god, wont to appear after long intervals of time, had now appeared to them” (tr. Godley, slightly modified)

It must be stressed from the outset that this construction cannot be considered on a par with εἰμί with perfect or present participle, or ἔχω with aorist participle: it occurs far less frequently (Aerts 1965:27-35 mentions little over ten examples, various of which he considers ambiguous or non-periphrastic) and can hardly be called ‘established’. As such, we could again speak of an ‘exploratory’ expression (compare §2.1.1).

There has been some debate whether we are dealing with a *perfect* or an *aorist* periphrasis: while Björck (1940:83-5) compares the aspectual value of the construction to that of the (plu)perfect (see also Gildersleeve 1980[1900]:125: “in most instances the aorist may be regarded as the short-hand of the perfect”), Porter (1989:476-8) claims that the construction must be considered an aorist periphrasis.<sup>41</sup> Rosén (1957:139) has even suggested that Herodotus used the construction not only as a ‘zweite Aorist’ but also with a futural value (see below). Before discussing some further examples, I would like to make the following two observations. Firstly, in a number of treatments Classical and Post-classical/Byzantine examples of εἰμί with aorist participle are mentioned in the same breath (so e.g. Björck 1940:74-85; Porter 1989:476-8). However, we must keep in mind that the use of the construction in these two periods differs substantially. In Post-classical/Byzantine Greek, the

construction of εἰμί with aorist participle was quite systematically employed as a replacement of (anterior) εἰμί with perfect participle, following the disappearance of the synthetic perfect due to its functional overlap with the aorist (cf. Haspelmath 1992). In fifth-century Classical Greek, on the other hand, we are dealing with an innovative expression following the establishment of εἰμί with perfect and present participle as periphrastic constructions; it represents, as Keil (1963:45) puts it, “ein weiteres Zeichen für die Suche dieser Zeit nach neuen Ausdrucksmöglichkeiten”. Secondly, we must not forget that even in Classical Greek there existed some functional overlap between the synthetic aorist and perfect. As Keil (1963:31-2) notes, the aorist could express *implicitly* what the perfect marks *explicitly*: “der Aor. drückt zwar das Resultat aus, die andauernde Wirkung muß jedoch aus dem Zusammenhang erschlossen werden”. From this point of view, it would not be entirely surprising that εἰμί with aorist participle showed *some* functional overlap with the synthetic/periphrastic perfect.

While there are only a few examples of the construction, we find that it is used in a broad range of contexts (compare Aerts 1965:51: “the aorist periphrases do not form a well-defined category”), approaching the functional domains of both perfective and perfect aspect. Perhaps the clearest instantiation of the perfective use of the construction would be where it denotes a perfective future (cf. Gildersleeve 1980[1900]:125), as in λέξον τίν’ αὐδὴν τήνδε γηρυθείω’ ἔσῃ (Aesch., *Suppl.* 460) “say what words these are that you are going to utter” (tr. Sommerstein), διαφυγὼν ἔσεσθαι<sup>42</sup> (Hdt. 7.194.3) “to escape”, or ὅποιοί τινες ἄνδρες ἔσονται γενόμενοι (Lys. 2.13) “which men they will become”. Such a perfective value could not be expressed by the synthetic future, which is commonly held to be aspectually ‘neutral’.

In another set of examples, the aorist participle is used in combination with the present tense of εἰμί. Consider example (17), which is uttered by Idanthysus, the Scythian king, in reply to a message sent by Darius, the Persian king, asking why the former always flees:

(17) ἐγὼ οὐδένα κω ἀνθρώπων δείσας ἔφυγον οὔτε πρότερον οὔτε νῦν σὲ φεύγω· οὐδέ τι νεώτερόν εἰμι ποιήσας νῦν ἢ καὶ ἐν εἰρήνῃ ἐώθεα ποιέειν (Hdt. 4.127.1)

“I never ran from any man before out of fear, and I am not running from you now; I am not doing any differently now than I am used to doing in time of peace, too” (tr. Godley)

Various interpretations have been suggested for this passage, ranging from “I have done nothing new” (Björck 1940:84) to “I am doing nothing new” (Aerts 1965:28, cf. also the translation by Godley), and even “I will do nothing new” (Rosén 1957:139). Aerts (1965:27)



rejects Rosén's unusual suggestion and argues against Björck's interpretation on the basis of the fact that "the *vōv* makes it clear that the point in question is not what Idanthysus has done, but what he is now doing", rightly I believe. I suggest that we are dealing here with a so-called 'primary aorist' (compare Aerts 1965:27: "the periphrasis serves more or less as unaugmented aorist indicative"),<sup>43</sup> the synthetic version of which does not exist in Classical Greek. To be more specific, this means according a habitual aspectual function to εἰμί with aorist participle, and extending the time period which *vōv* denotes. Such a habitual interpretation is supported by paragraph 1.126, where it is said that Idanthysus' fleeing "occurred often and did not stop" (πολλὸν τοῦτο ἐγίνετο καὶ οὐκ ἐπαύετο).

In another example (οὔτε γὰρ θρασὺς οὔτ' οὖν προδείσας εἰμί (Soph., *OT* 89-90) "I am neither bold nor fearing prematurely"), εἰμί is again used in the present tense, and combined with the aorist participle of a lexically stative verb (the otherwise unattested \*προδείδω "I fear prematurely"). The combination of perfective (aoristic) morphology with stative lexical aspect typically results in an ingressive aspectual value, as in ἐνόησε "he fell sick" (Rijksbaron 2006:20-1). In this particular case, however, ingressiveness is somewhat backgrounded,<sup>44</sup> as we are dealing with a so-called 'tragic aorist' (cf. Aerts 1965:34; Rijksbaron 2006:128),<sup>45</sup> expressing Oedipus' reaction at an announcement made by Creon.

Finally, in a number of other examples, we find that the aspectual value of εἰμί with aorist participle is more perfect-like (by which I do not mean to say that the construction is semantically equivalent to εἰμί with perfect participle), as in ἦν φύσεως ἰσχὺν δηλώσας (Thuc. 1.138.1) "he had shown proofs of his mental strength"; ἦσαν δέ τινες καὶ γενόμενοι λόγοι (Thuc. 4.54.3) "some earlier proposals had been made". In such cases, εἰμί is mostly used in the imperfect tense.

As I have already hinted at, I believe the origins of εἰμί with aorist participle can again be related to the process of intraference: following the establishment of εἰμί with perfect and present participle as periphrastic constructions, εἰμί was also combined with the aorist participle. As with the present participle, intraference may have worked in two ways. Cases such as the above mentioned οὔτε γὰρ θρασὺς οὔτ' οὖν προδείσας εἰμί (Soph., *OT* 89-90) may have come about through a direct analogical extension of the stative perfect/present participle, next to the regular adjective (note the co-ordination of προδείσας with θρασύς). Alternatively, after the example of the perfect and present participle, the aorist participle may have come to be employed more frequently in the locational construction, with the earlier development of (anterior) εἰμί with perfect participle and (progressive) εἰμί with present

participle stimulating a form-meaning reanalysis. An example of the aorist participle accompanying the locational construction (more in particular the existential subtype) is given in (18):<sup>46</sup>

(18) λόγος μὲν ἔστ' ἀρχαῖος ἀνθρώπων φανείς / ὥς οὐκ ἂν αἰῶν' ἐκμάθοις βροτῶν, πρὶν ἂν / θάνῃ τις, οὗτ' εἰ χρηστὸς οὗτ' εἴ τῳ κακός (Soph., *Trach.* 1-3)

“there is a saying among men, put forth long ago, that you cannot judge a mortal's life and know whether it is good or bad until he dies” (tr. Jebb)

## 2.3. Fourth-century Classical Greek

### 2.3.1. *Periphrasis and the perfect again*

While the construction of ἔχω with aorist participle occurs with some frequency in writers such as Herodotus, Sophocles and Euripides, in fourth-century Classical Greek the construction is much less frequently attested. Only a few examples can be found in Plato and Demosthenes (among others):<sup>47</sup> Φεράς ἔχει καταλαβόν (Dem. 9.12) “he has seized Pherae”; εἰς ἀτιμίαν τὴν πόλιν ἡμῶν καταστήσας ἔχει (Dem. 19.288) “it has dragged our city into discredit”; τὸν λόγον δέ σου πάσαι θαυμάσας ἔχω (Pl., *Phdr.* 257c) “but all along I have been wondering at your discourse”. To explain the decline of this periphrastic construction, we can again look unto the development of the synthetic perfect: as has been noted by a number of scholars, the synthetic perfect further increases in productivity in fourth-century Classical Greek,<sup>48</sup> thus ousting periphrastic ἔχω with aorist participle (cf. Keil 1963:47; Aerts 1965:129). For those arguing against the connection between ἔχω with aorist participle and the synthetic perfect (see note 27), this development is of course hard to explain.

Such competition with the synthetic perfect did not affect εἰμί with perfect participle, which had a clearly defined place within the paradigm (cf. §2.2.1). In fourth-century Classical Greek this construction further increases in frequency: Bentein (2012a:29) reports over 500 examples, with especially Plato, Xenophon and Demosthenes making frequent use of the construction. Some scholars have claimed that the construction was limited to a resultative aspectual function,<sup>49</sup> but this is incorrect: Bentein (2012a:28-34) has shown that the trend towards the use of εἰμί with perfect participle in more transitive contexts continued in the fourth century BC, leading to a more or less even distribution of the construction between resultative and anterior aspect (the resultative perfect function in various authors being outdone by that of the anterior perfect). As a result, the construction of ἔχω with aorist

participle may be said to have received competition from two sides, rather than one, though the role of εἰμί with perfect participle will have been mainly limited to the third person.

While in the fifth century BC εἰμί with perfect participle was mainly used with the passive participle of lexically telic verbs (cf. §2.2.1), in fourth-century Classical Greek we find numerous examples with an active or middle perfect participle taking an accusative object (according to Bentein 2012a:29 these represent up to 40% of the total number of anterior cases). One such example is given in (19):

(19) ἐγὼ μὲν οὐδὲ ἀκήκοα πώποτε πρᾶγμα μιαιώτερον, ἢ ὃ οὗτοι διαπεπραγμένοι εἰσὶ περὶ ἡμῶς (Dem. 35.26)

“for my own part, I have never heard of a more abominable act than that which these men have committed in relation to us” (tr. Murray)

What is interesting is that in fourth-century Classical Greek the periphrastic construction of εἰμί with perfect participle also shows a trend towards morphological expansion: it becomes used in the subjunctive and optative mood (e.g. παρὰ τοῦτον ἂν εἰρηκῶς εἴη τὸν νόμον (Dem. 23.86) “he would have spoken against that law”), in the future tense (e.g. οὕτως οἱ πολέμοι πλεῖστον ἐψευσμένοι ἔσονται (Xen., *Anab.* 3.2.31) “in this way the enemy will be greatly deceived”), and is no longer exclusively used for 3SG/PL (e.g. ἐπειδὴ δεδειπνηκότες ἦμεν (Pl., *Prot.* 310c) “when we had dined”).<sup>50</sup>

### 2.3.2. Expansion of εἰμί with present participle?

Similarly to εἰμί with perfect participle, the construction of εἰμί with present participle further increases in frequency in fourth-century Classical Greek: Bentein (2012b:26) mentions around 360 examples, Plato in particular making very frequent use of the construction. One remarkable difference between these two constructions, however, concerns the fact that while the expansion of the former encompasses its more transitive use as an anterior perfect, εἰμί with present participle is almost entirely limited to a stative aspectual function.

While in fifth-century Classical Greek the construction is mainly used with verbs whose participle expresses an ‘adjective-like’ quality, fourth-century writers more fully exploit its expressive possibilities. In Plato, for example, the participles of the verbs εἰμί and ἔχω are very frequently employed, accounting for about half of the examples. One such case would be (20), where ἔχω is used in combination with διπλόην “weak spot” to maintain the co-ordination with the true adjective ὀγυῖς “sound” (on the use of periphrasis to maintain co-ordination, see also Björck 1940:32; Aerts 1965:17):

(20) τὸν δοξομιμητὴν δὴ σκοπώμεθα ὥσπερ σίδηρον, εἴτε ὑγιὲς εἴτε διπλόην ἔτ' ἔχων τινὰ ἔστιν ἐν ἑαυτῷ (Pl., *Soph.* 267e)

“then let us examine the opinion-imitator as if he were a piece of iron, and see whether he is sound or there is still some seam in him” (tr. Fowler)

Noticeable is also the use of εἰμί with present participle with lexically dynamic predicates to express general truths, characterize people, define concepts etc. (a use which was much less common in fifth-century Classical Greek), as in ἔστι ταῦτα τὴν ἐκάστου ῥαθυμίαν ὑμῶν ἐπαυξάνοντα (Dem. 3.33) “that increases the apathy of each of you”; σώματα κακουργοῦσά ἐστιν (Pl., *Leg.* 933a) “it injures bodies”; εἰς καὶ εἰς βέλτιστον τόπον ἰόντες (Pl., *Phaed.* 82a) “they go to the best place”.

While the use of εἰμί with the present participle of lexically dynamic verbs (with stative aspectual function, that is) can be considered to continue the trend towards the use of the construction in more transitive contexts, the more prototypical transitive use, i.e. that of εἰμί with present participle with a progressive function, is almost unattested. Bentein (2012b:31) mentions the existence of some exceptional instances in Plato, as in (21) (but note the transitivity-decreasing use of the passive voice with the participle ἀκουόμενα):

(21) ἦν μὲν οὖν μετὰ πολλῆς ἡδονῆς καὶ παιδιᾶς τότε ἀκουόμενα (Pl., *Tim.* 26b)

“it was then (being) heard with the greatest pleasure and amusement” (tr. Fowler, modified)

The absence of periphrastic examples with a progressive function is somewhat unexpected, as εἰμί with perfect participle with an anterior function does become more frequently employed (on the conceptual relationship between anterior and progressive, cf. §2.2.1). From an ecological point of view, we could have expected the development of a conceptually similar construction to have further stimulated the progressive use of εἰμί with present participle. It thus seems likely that additional factors must be taken into account. Several authors (Dietrich 1973a:232-4; Bentein 2012b:34-7), for example, have drawn attention to the very frequent use of the construction of τυγχάνω “I happen to be, am” with present participle in Classical Greek, as in (22), where the form τυγχάνω παρακαλῶν “I am exhorting” denotes an event that is ongoing at the time of speaking:

(22) τούτου δ' ἕνεκά σοι περὶ τούτων διήλθον, ἵνα γνῷς, ὅτι σε τυγχάνω τῷ λόγῳ παρακαλῶν ἐπὶ τοιαύτας πράξεις, ἃς ἐπὶ τῶν ἔργων οἱ πρόγονοί σου φαίνονται καλλίστας προκρίναντες (Isoc. 20.113)

“my purpose in relating all this is that you may see that by my words I am exhorting you to a course of action which, in the light of their deeds, it is manifest that your ancestors chose as the noblest of all” (tr. Norlin)

Further research would be needed to determine the exact degree of functional overlap between εἰμί with present participle and τυγχάνω with present participle. While Björck (1940:64) heavily emphasizes that the construction with τυγχάνω in all cases maintains a notion of ‘coincidence’, it is still unclear (a) whether the semantic contribution of τυγχάνω is best described in terms of ‘coincidence’ (which I find difficult to apply to (22));<sup>51</sup> (b) to what extent the semantics of the construction changed diachronically; from a cross-linguistic point of view, a development from the domain of modality to that of aspect would not be uncommon (Marchello-Nizia 2006:114-5). In any case, it is interesting to note that in Post-classical Greek, when the construction with εἰμί does become more frequently attested with a progressive function, that with τυγχάνω disappears (in texts written in the low and middle register, that is) (Jannaris 1897:493).

### **2.3.3. Back to the periphery: εἰμί with aorist participle**

As in fifth-century Classical Greek, the construction of εἰμί with aorist participle can be considered peripheral. It retains its status as an innovative, expressive construction. The large majority of the examples can be found in Plato (various of which ambiguous), in whose work the perfective uses mentioned above (i.e. in the future, as a habitual, or with an ingressive function) are unattested. As pointed out by Alexander (1883:306-7) and Aerts (1965:30-1), in Plato the construction seems to have been employed for its ‘particularizing’ force. This comes to the fore most clearly when we contrast it with εἰμί with present participle, which is used in similar contexts. Compare, for example, τῆδ’ οὖν τὸ τοιοῦτον ἔστω λεγόμενον (Pl., *Tim.* 90e) “let this topic stand expressed as follows” and ταῦτ’ ἔστω ταύτῃ λεχθέντα (Pl., *Plt.* 265d) “let this be (have been) said in this way”; ἢ τοῦτο οὐκ ἔστι γινόμενον παρ’ ἡμῖν; (Pl., *Phileb.* 39c) “or does that not happen with us?” and καὶ γὰρ οὖν ἡμῖν οὐ τοῦτ’ ἐστὶν ἀδύνατον οὐδὲ χαλεπῶς ἂν γενόμενον (Pl., *Leg.* 711c) “for us this would not be impossible or difficult to bring about” (compare with Dem. 21.114, where we also encounter the modal particle ἄν). In both cases, the use of εἰμί with present participle refers to what Alexander (1883:303-4) calls an ‘abiding condition’, while εἰμί with aorist participle refers to a more specific instance. In one example (εἰσιν ... καλὸν δὲ ἔργον καὶ ἐπιφανὲς μηδὲν δράσαντες πρόποτε (Pl., *Leg.* 829c) “they have never done any noble or notable deed”), the construction expresses a value which comes close to that of the anterior perfect, without being semantically equivalent to it. This

may be compared to an example from Theopompus (κατασκευασάμενος ἦν ὄργανα πολλὰ (Theopomp., *Fragm.* 236, 9) “he had established many instruments”), and possibly also Xenophon (ἄνδρα κατακάνοντες ἔσεσθε (*An.* 7.6.36) “you will have killed a man”).<sup>52</sup>

### 3. DISCUSSION: THE SEMANTIC DEVELOPMENT OF VERBAL PERIPHRAISIS WITH εἰμί AND ἔχω

In §2, we saw that in the domain of perfect aspect the constructions of ἔχω with aorist participle and εἰμί with perfect participle developed from a resultative/stative to an anterior aspectual function, and that in the domain of imperfective aspect the construction of εἰμί with present participle developed from a stative to a progressive aspectual function, if only to some extent. From a cross-linguistic point of view, these developments are not unsurprising: in fact, Squartini & Bertinetto (2000) and Bertinetto, Ebert & de Groot (2000) have recently formulated so-called ‘grammaticalization paths’ (common paths of semantic development of comparable constructions across the languages of the world), called ‘aoristic drift’ and ‘PROG imperfective drift’ respectively, which apply well to what I have discussed in the preceding sections (for discussion and references, see Bentein 2012a, 2012b).

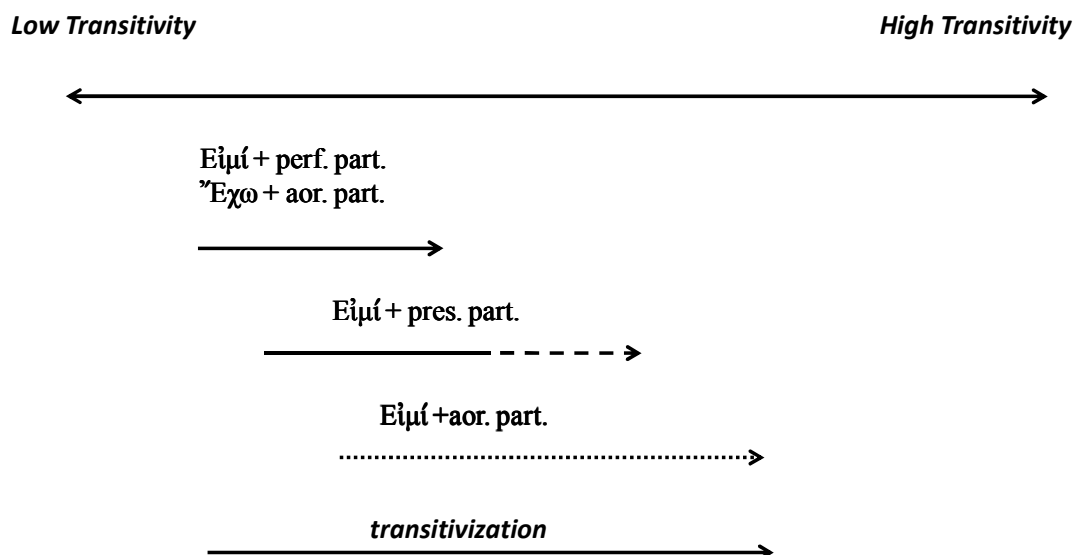
What is novel to the approach I have advanced in this article is that the semantic development of the periphrastic constructions under analysis is related to the notion of ‘(generalized, gradual) transitivity’. This notion offers us a means to capture their general development, a matter which has been of little interest so far, but from an ecological point of view is certainly worth investigating. Throughout this article, I have argued that ἔχω with aorist participle, εἰμί with perfect participle and εἰμί with present participle came to be used in more transitive contexts, with regard to parameters such as *participants*, *lexical aspect*, *agency*, *volitionality*, *affectedness of the object*, etc. (cf. again note 6). As such, I suggest that they underwent a common semantic development, which can be described as *transitivization*.<sup>53</sup>

Somewhat tentatively, I suggest that the notion of transitivization has relevance for the subject of verbal periphrasis in a second sense as well. With regard to the construction of εἰμί with aorist participle, I am rather hesitant to claim that this construction too became used in more transitive contexts. As I have shown above, there is some variation in its aspectual functions, but the examples are too infrequent to make any firm conclusions. What we can say, however, is that periphrasis with εἰμί and ἔχω *in general* increased in transitivity, first having occurred in the domain of perfect aspect, than in that of imperfect aspect, and only in a final stage in that of perfective aspect. It is worth noting that from a cross-linguistic point of

view this is rather uncommon: as pointed out by the study of Bybee & Dahl (1989:56), perfective periphrases occur infrequently in the languages of the world.

A schematic overview of these two types of *transitivization* is given in figure 1:<sup>54</sup>

**Figure 1: *The semantic development of verbal periphrasis with εἰμί and ἔχω in Archaic/Classical Greek***<sup>55</sup>



#### 4. CONCLUSION

In this article, I have attempted to demonstrate the importance of applying an ‘ecological’ perspective to the subject of verbal periphrasis in Ancient Greek, as well as the relevance of the notion ‘transitivity’. I have concentrated on the development of constructions with the verbs εἰμί and ἔχω in the period from the eighth to the fourth century BC.

In summary, I have shown that in Archaic Greek periphrastic constructions first emerge in the domain of perfect aspect (more in particular, εἰμί with perfect participle, with a resultative function). Already at this early stage, we see a tendency for periphrastic constructions with others types of participle and finite verb to emerge, especially through the so-called ‘locational’ source construction, accompanied by a conjunct participle.

In fifth-century Classical Greek the first ‘established’ periphrastic constructions can again be found in the domain of perfect aspect: morpho-phonological difficulties in the formation of the synthetic perfect (more specifically the third person of the medio-passive perfect, and the active (anterior) -κ- perfect), which emerged at the same time, stimulated the use of both εἰμί with perfect participle and ἔχω with aorist participle. While the latter construction was predominantly used in transitive contexts, and the former in intransitive ones, I have drawn attention to signs of (semantic/morphological) extension of both constructions. I have furthermore suggested that the use of εἰμί with perfect participle with an anterior function

may have come about through the influence of ἔχῳ with aorist participle, a mechanism called *intraference*. I hold this same mechanism, intraference, responsible for the emergence of εἰμί with present and aorist participle, which can be considered extensions of εἰμί with perfect participle. While εἰμί with aorist participle was not used with a fixed aspectual function in fifth-century Classical Greek, εἰμί with present participle had a strongly stative aspectual character, similarly to εἰμί with perfect participle. At the same time, however, we find various examples where εἰμί with present participle is used in more transitive contexts, with a progressive aspectual function.

With regard to fourth-century Classical Greek, the last stage which I have taken into account in this article, I have drawn attention to the further development of the synthetic perfect (as an anterior), which brought with it the disappearance of ἔχῳ with aorist participle (being deprived of its *raison d'être*). The construction of εἰμί with perfect participle, on the other hand, had a firmly established place within the paradigm and further expanded as an anterior perfect, though mainly being limited to the third person. While one could expect that the use of εἰμί with perfect participle in more transitive contexts would have stimulated the use of εἰμί with present participle as a progressive (a phenomenon attested in other languages), this seems to have occurred only to a very small extent: rather, in fourth-century Classical Greek εἰμί with present participle is primarily used in its stative aspectual function (though now also frequently with dynamic verbs to express general truths etc.). I have suggested that the absence of progressive examples may be related to another ecological factor, the existence of a strongly grammaticalized construction with the verb τυγχάνω. As for the construction of εἰμί with aorist participle, it seems to have kept its peripheral status, being infrequently employed.

So as to describe the overall semantic development of periphrasis with the verbs εἰμί and ἔχῳ in Ancient Greek, I have introduced the term *transitivization*, and have suggested that it can be understood in two (complementary) ways. Firstly, from a semantic point of view each of the periphrastic constructions (or, more correctly, the clauses in which they occur) becomes increasingly more transitive. Secondly, periphrasis in general seems to increase in transitivity, first occurring in the functional domain of perfect aspect, then in that of imperfective aspect, and only afterwards in that of perfective aspect.

In this article I have only been able to analyze the emergence of periphrastic constructions with two finite verbs. However, as Dietrich (1973a, 1973b) among others has shown, in Classical Greek participial constructions with many other finite verbs develop, some of which more marginal than the other. Next to the already mentioned τυγχάνω, mention can be made



of constructions with γίγνομαι “I become” (e.g. μὴ προδοῦς ἡμᾶς γένῃ (Soph. *Aj.* 588) “do not betray us”), ἔρχομαι “I go” (e.g. ἔρχομαι ἐρέων (Hdt. 1.5.3) “I am going to say”) and ὑπάρχω “I am” (e.g. οὕτως ἔχονθ’ ὑπάρχει (Dem. 14.19) “it is thus”) among others (a fuller overview is given in Bentein 2012c). What would be needed is to expand the analysis provided in this article, and to further explore the ecological relations between these different constructions, in connection with the development and use of the synthetic tenses. Doing so will lead to a more comprehensive understanding of the verbal system in Archaic and Classical Greek.

## REFERENCES

- Aerts, W.J. 1965. *Periphrastica*. Amsterdam: Hakkert (diss. Amsterdam).
- Alexander, W.J. 1883. Participial periphrases in Attic prose. *American Journal of Philology* 6, 291-308.
- Anderson, J.M. 2011. *Morphology, paradigms, and periphrases*. Oxford: Oxford University Press.
- Bary, C., 2009. *Aspect in Ancient Greek. A semantic analysis of the aorist and imperfective*. Ph.D. dissertation, Nijmegen University.
- Bentein, K. 2012a. The periphrastic perfect in Ancient Greek. A diachronic mental space analysis. *Transactions of the Philological Society* 110 (2), 1-42. *In press*.
- Bentein, K. 2012b. PROG imperfective drift in Ancient Greek? Reconsidering *eimi* ‘be’ with present participle. *Transactions of the Philological Society* 110 (3), 1-41. *In press*.
- Bentein 2012c. Verbal periphrasis in Ancient Greek. A state of the art. *Revue Belge de Philologie et d’Histoire* 90, 5-56. *In press*.
- Benveniste, E. 1960. ‘être’ et ‘avoir’ dans leurs fonctions linguistiques. *Bulletin de la Société Linguistique de Paris* 55, 113-34.
- Bertinetto, P.M., Ebert, K.H. & C. de Groot. 2000. The progressive in Europe. In: Ö. Dahl (ed.), *Tense and aspect in the languages of Europe*, 517-58. Berlin & New York: Mouton de Gruyter.
- Björck, G. 1940. Ἡ διδασκων. *Die periphrastischen Konstruktionen im Griechischen*. Uppsala: Almqvist & Wiksell (diss. Uppsala).
- Bybee, J. & Ö. Dahl. 1989. The creation of tense and aspect systems in the languages of the world. *Studies in Language* 13, 51-103.
- Chantraine, P. 1927. *L’histoire du parfait grec*. Paris: Champion.
- Chantraine, P. 1991[1945]<sup>3</sup>. *Morphologie historique du grec*. Paris: Klincksieck.
- Clark, E.V. 1978. Locationals: Existential, locative, and possessive constructions. In: J.H. Greenberg et al. (eds.), *Universals of Human Language, Vol. 4: Syntax*, 85-126. Stanford: Stanford University Press.
- Croft, W. 2000. *Explaining language change. An evolutionary approach*. Harlow: Longman.

- Denison, D. 2000. Combining English auxiliaries. In: O. Fischer, A. Rosenbach & D. Stein (eds.), *Pathways of change: grammaticalization in English*, 111-47. John Benjamins: Amsterdam & Philadelphia.
- Dietrich, W. 1973a. *Der periphrastische Verbalaspekt in den romanischen Sprachen*. Tübingen: Niemeyer.
- Dietrich, W. 1973b. Der Periphrastische Verbalaspekt im Griechischen und Lateinischen. *Glotta* 51, 188-228.
- Dik, S.C. 1989. *The theory of functional grammar. 1 : The structure of the clause*. Dordrecht: Foris.
- Drinka, B. 2003a. The formation of periphrastic perfects and passives in Europe: An areal approach. In: B. Blake & K. Burridge (eds), *Historical Linguistics 2001*, 105-28. Amsterdam & Philadelphia: Benjamins.
- Drinka, B. 2003b. Areal factors in the development of the European periphrastic perfect. *Word* 54, 1-38.
- Duhoux, Y. 2000<sup>2</sup>. *Le verbe grec ancien*. Louvain-la-Neuve: Peeters.
- Farrar, F.W. 1867. *A brief Greek syntax and hints on Greek accidence*. London: Longmans.
- Garner, M. 2004. *Language: An ecological view*. New York: Peter Lang.
- Giannaris, A. 2011a. Pluperfect periphrases in Medieval Greek: A perspective on the collaboration between linguistics and philology. *Transactions of the Philological Society* 109, 1-14.
- Giannaris, A. 2011b. Οι περιφράσεις ‘εἶμι/εἶμαι + μετοχή’ στην Ελληνική. Διαχρονική προσέγγιση. Ph.D. thesis, University of Athens.
- Gildersleeve, B.L. 1980[1900]. *Syntax of classical Greek*. Groningen: Bouma.
- Haspelmath, M. 1992. From resultative to perfect in Ancient Greek. In: J.L. Iturrioz Leza (ed.), *Nuevos estudios sobre construcciones resultativas* (= Función 11-12), 187-224. Universidad de Guadalajara: Centro de Investigación de Lenguas Indígenas.
- Haspelmath, M. 2003. The geometry of grammatical meaning: Semantic maps and cross-linguistic comparison. In: M. Tomasello (ed.), *The New Psychology of Language*, vol. 2, 211-43. New York: Lawrence Erlbaum Associates Publishers.
- Heine, B. & T. Kuteva. 2006. *The changing languages of Europe*. Oxford: Oxford University Press.
- Hopper, P. & S. Thompson. 1980. Transitivity in grammar and discourse. *Language* 56, 251-99.
- Hopper, P.J. & E.C. Traugott. 2003<sup>2</sup>. *Grammaticalization*. Cambridge: Cambridge University Press.
- Jannaris, A. 1897. *An historical Greek grammar chiefly of the Attic dialect*. Hildesheim: Olms.
- Keil, F. 1963. Untersuchungen zum Perfektgebrauch Herodots. *Glotta* 41, 10-51.
- Kimball, S.E. 1991. The origin of the Greek κ-perfect. *Glotta* 69, 141-53.
- Kirk, G.S. 1985. *The Iliad: A Commentary. 1: Books 1–4*. Cambridge: Cambridge University Press.
- Kühner, R. & B. Gerth. 1976[1898-1904]<sup>3</sup>. *Ausführliche Grammatik der griechischen Sprache. Zweiter Teil: Satzlehre*. Hannover: Verlag Hahnsche Buchhandlung.
- Langacker, R. 2008. *Cognitive grammar: A basic introduction*. Oxford: Oxford University Press.

- Langacker, R. 2009. *Investigations in Cognitive Grammar*. Berlin: Mouton de Gruyter.
- Lazard, G. 2002. Transitivity revisited as an example of a more strict approach in typological research. *Folia Linguistica* 36, 141-90.
- Liddell, H.G. & R. Scott. 1968<sup>9</sup>. *A Greek-English Lexicon*. Oxford: Clarendon.
- Lloyd, M. 1999. The tragic aorist. *Classical Quarterly* 49, 24-45.
- Marchello-Nizia, C. 2006. *Grammaticalisation et changement linguistique*. Bruxelles: De Boeck.
- Maslov, J., 1988. Resultative, perfect, and aspect. In: V. Nedjalkov (ed.), *Typology of resultative constructions*, 63-85. Amsterdam: Benjamins.
- Moser, A. 1988. *The history of the perfect periphrasis in Greek*. Ph.D. Thesis: Cambridge University.
- Mufwene, S. 2001. *The ecology of language evolution*. Cambridge: Cambridge University Press.
- Mufwene, S. 2008. *Language evolution: Contact, competition, and change*. London: Continuum.
- Naess, A. 2007. *Prototypical transitivity*. Amsterdam: Benjamins.
- Nettle, D. 1999. *Linguistic diversity*. Oxford: Oxford University Press.
- Polzenhagen, F., 2008. The so-called Tense-Aspect system of the English verb: A cognitive-functional view. In: H.-G. Wolf et al. (eds.), *Focus on English*, 219-46. Leipzig: Leipziger Universitätsverlag.
- Pompei, A. 2006. Participles as a non prototypical word class. In: E. Crespo et al. (eds.), *Word classes and related topics in Ancient Greek*, 361-88. Louvain-la-Neuve: Peeters.
- Porter, S.E. 1989. *Verbal aspect in the Greek of the New Testament*. New York: Peter Lang.
- Pouilloux, J. 1957. Une particularité sophocléenne: La périphrase du participe aoriste et de ἔχω. In: *Mélanges offerts à Octave et Melpo Merlier à l'occasion du 25e anniversaire de leur arrivée en Grèce*, 117-35. Athènes: Institut Français d'Athènes.
- Rijksbaron, A. 2006<sup>3</sup>. *The syntax and semantics of the verb in Classical Greek*. Chicago & London: The University of Chicago Press.
- Ringe, D. 1984. Εἰληφα and the aspirated perfect. *Glotta* 62, 125-41.
- Rosén, H.B. 1957. Die "zweiten" Tempora des Griechischen: Zum Prädikatsausdruck beim griechischen Verbum. *Museum Helveticum* 14, 133-54.
- Shannon, T.F. 1995. Toward a cognitive explanation of perfect auxiliary variation: Some modal and aspectual effects in the history of Germanic. *American Journal of Germanic Linguistics and Literatures*, 129-63.
- Slings, S.R. 1994. Geschiedenis van het perfectum in het oud-Grieks. In: R. Boogaart & J. Noordegraaf (eds.), *Nauwe betrekkingen*, 239-47. Amsterdam & Münster: Stichting Neerlandistiek VU.
- Smith, K.A. 2007. Language use and auxiliary selection in the perfect. In: R. Aranovich (ed.), *Split auxiliary systems: A cross-linguistic perspective*, 255-70. Amsterdam: John Benjamins.
- Squartini, M. & P.M. Bertinetto. 2000. The simple and compound past in Romance languages. In: Ö. Dahl (ed.), *Tense and aspect in the languages of Europe*, 385-402. Berlin: de Gruyter.

Thielmann, P. 1891. "Ἐχω mit Particip. In: *Abhandlungen aus dem Gebiet der klassischen Altertums-Wissenschaft*, 294-306. München: Beck.

Vincent, N. 1982. The development of the auxiliaries *habere* and *esse* in Romance. In: N. Vincent & M. Harris (eds.), *Studies in the Romance verb*, 71-96. London: Croom Helm.

Wackernagel, J. 1953[1904]. Studien zum griechischen Perfectum. *Programm zur akademischen Preisverteilung*, 3-32. Repr. in *Kleine Schriften*, 1000-21, Göttingen: Vandenhoeck and Ruprecht.

---

<sup>1</sup> See already Farrar (1867:2): "Greek presents the most perfect specimen of an inflectional or synthetic language".

<sup>2</sup> In the last few years, various studies have appeared on the diachrony of periphrastic constructions with εἶμι and ἔχω in different stages of the Greek language, among others Giannaris 2011a, 2011b and Bentein 2012a, 2012b (a fuller overview of the literature is given in Bentein 2012c). As one of the referees notes, in general much scholarly attention has recently gone to the semantic, morphological and syntactic features of verbal periphrasis in the languages of the world, viewed both synchronically and diachronically (see e.g. the wide-ranging study of Anderson 2011).

<sup>3</sup> Etymologically, the notion 'ecology' derives from Ancient Greek οἶκος "house". It was originally employed in biology to express the idea that the whole earth is like a vast, interrelated household (Garner 2004:23).

<sup>4</sup> On the notion of linguistic item, see Nettle (1999:5): "a linguistic item is any piece of structure that can be independently learned and therefore transmitted from one speaker to another, or from one language to another. Words are the most obvious linguistic items, but sounds and phonological processes are items too, as are grammatical patterns and constructions".

<sup>5</sup> I will not go further into the complex relationship between *aspectual (verbal) semantics* and *(clausal) context* here (e.g. does the appearance of a construction – whether periphrastic or integrated in the verb form – in more transitive contexts necessarily entail a change in aspectual semantics?), which is one of the major research-questions of present-day linguistic research. In my view, we must adopt a usage-based perspective to this issue: frequent use of a construction in a given context will lead to its association with this context, as a result of which contextual elements need no longer be present in all cases, or the construction itself will determine the context. For ease of reference, when considering the aspectual semantics of a particular construction in a given period of the language, I will say that it has this or that aspectual function, while fully realizing that in some (individual) cases the context may still make a rather important semantic contribution.

<sup>6</sup> This concerns the following transitivity parameters (with A = Agent; O = Object; > = more transitive than): a. *Participants*: two or more participants (A and O) > one participant; b. *Kinesis*: action > non-action; c. *Aspect*: telic > atelic; d. *Punctuality*: punctual > non-punctual; e. *Volitionality*: volitional > non-volitional; f. *Affirmation*: affirmative > negative; g. *Mode*: realis > irrealis; h. *Agency*: A high in potency > A low in potency; i. *Affectedness of O*: O totally affected > O not affected; j. *Individuation*

---

*of Q*: O highly individuated > O non-individuated. I believe we could add (at least) two more component parameters to this overview (not included by Hopper & Thompson 1980), namely ‘time’ (with past > present/future) and ‘voice’ (with active > middle/passive). Under ‘aspect’ we can also list ‘grammatical’ aspect, with perfective > imperfective > perfect.

<sup>7</sup> I follow Haspelmath (2003:212) in using ‘(aspectual) function’ as a neutral term. Other scholars may speak of ‘interpretations’, ‘meanings’, ‘readings’, ‘uses’ ...

<sup>8</sup> There has been much discussion about the semantics of the perfect as an aspectual category (cf. Bentein 2012a:1-12). In line with cross-linguistic research (see e.g. Maslov 1988; Bybee & Dahl 1989; Haspelmath 1992), I recognize two main aspectual functions, which are called ‘resultative’ (denoting a state which may be the result of a previous event, as in ἔφθορα “I am destroyed”) and ‘anterior’ (denoting the occurrence of a prior event with current relevance, as in ἔφθαρκα τὴν πόλιν “I have destroyed the city”). Unfortunately, the term ‘resultative’ has come to be used in cross-linguistic studies to denote almost the opposite of what it means in some of the seminal works on the Ancient Greek perfect (Wackernagel 1953[1904]; Chantraine 1927). One option would be to use another term for resultative (e.g. ‘stative’, which has, however, other implications), but I believe the benefits of avoiding confusion do not outweigh those of terminological uniformity with the major recent works. When the term is used in the Wackernagel-Chantraine sense, this will be explicitly indicated.

<sup>9</sup> The Greek text of the examples is based on the Teubner edition. Periphrastic forms (including ambiguous cases) are underlined for the sake of clarity.

<sup>10</sup> Grammaticalization can be defined as “the change whereby lexical items and constructions come in certain linguistic contexts to serve grammatical functions and, once grammaticalized, continue to develop new grammatical functions” (Hopper & Traugott 2003:xv).

<sup>11</sup> This combination seems to be metrically fixed: it always occurs before a disyllabic form of εἰμί (e.g. ἐστίν, ἦεν, εἴη), occupying the same place in the line (i.e. from the hephthemimeral caesura to line end).

<sup>12</sup> Here as in the remainder of my article, I use the term ‘more transitive context’ as a cover term to refer to features indicative of high(er) transitivity, such as *agency*, *the presence of two participants*, *past time reference* etc. (compare note 6).

<sup>13</sup> Contrast with Aerts (1965:14), who contends that “periphrasis with the present participle does not occur in Homer”, without, however, discussing this specific passage. One of the referees is not convinced that we have a genuine periphrastic progressive construction in *Il.* 2.295 and suggests that we are dealing with a possessive-like construction with a conjunct participle, noting that the translation also seems to be based on this interpretation. While this possibility perhaps should not be entirely excluded, I would like to point out the following: (a) in a non-periphrastic interpretation the participle is best taken attributively (i.e. ‘the ninth revolving year’), as it occurs before the noun ἐνιαυτός (cf. Rijksbaron 2006:132-3). As Kirk (1985:147) notes, however, this interpretation can be

excluded on contextual grounds: in *Il.* 2.134 we read that nine years have already gone by; (b) rather than reflecting a non-periphrastic interpretation, the translation “it is the ninth year that is turning” indicates that we are dealing with a so-called ‘constituent focus utterance’, whereby a single constituent rather than the entire predicate is focal (contrast e.g. English [Remember my friend John?] ‘He *went to a football game*’ with [It’s not my arm that hurts] ‘my *neck* hurts’). As Rosén (1957) first noticed, this type of argument structure occurs surprisingly often with periphrastic constructions (see Bentein 2012b:16-7 for further discussion and references).

<sup>14</sup> A number of scholars (e.g. Dietrich 1973a:189; Porter 1989:457) also consider the Homeric examples with the form ἦα κίων (*Od.* 10.156, 12.368, 16.472, 24.491) periphrastic (with a progressive aspectual function). However, these cases are problematic because it is unclear whether κίων can be considered a present participle. Moreover, I believe they can also be interpreted non-periphrastically.

<sup>15</sup> Pouilloux (1957:3, 18) considers κρύψαντες ... ἔχουσι an anterior perfect, referring to the translation by Mazon: “les dieux ont caché” (cf. also Aerts 1965:129-30, referring to Schol. Eur. Hippol. 932). Perhaps such an interpretation should not be entirely excluded, but note that (a) it would be surprising to find ἔχω with aorist participle with an anterior value at such an early stage of development (see further §2.2.1); (b) Hesiod seems to emphasize that the Gods *still* have the means of life hidden. Only resultative perfects collocate freely with the adverb *still* (Bentein 2012a:11). With the anterior perfect it may be implied that a state still obtains, but this need not necessarily be the case.

<sup>16</sup> The conjunct participle is typically defined as specifying the circumstances under which the main action occurs, syntactically agreeing with a noun or pronoun (as in ἀκούσας δὲ ταῦτα ὁ Ἀστυάγης Μήδους ... ὥπλισε πάντας (*Hdt.* 1.127.2) “when he heard this, Astyages armed all his Medes”; example borrowed from Rijksbaron 2006:122). Functionally, however, the conjunct participle is more complex. Pompei (2006) defines three main types of conjunct participle: (a) *the appositive participle*, where the participle functions as an adnominal modifier (as in ὁρῶ / Τέκμησσαν, οἴκῳ τῷδε συγκεκραμένην (*Soph., Aj.* 894-5) “I see Tecmessa, steeped in the anguish of that wail”; example borrowed from Rijksbaron 2006:133); (b) *the subordinative participle*, where the participle functions as an adverbial modifier (cf. the example given above, *Hdt.* 1.127.2); (c) *the co-subordinative participle*, where the participle indicates a link between predication (as in καὶ νῦν, ἔφη, μὴ μέλλωμεν, ὦ ἄνδρες, ἀλλ’ ἀπελθόντες ἤδη αἰρεῖσθε οἱ δεόμενοι ἄρχοντας (*Xen., An.* 3.1.46) “and now, gentlemen”, he went on, ‘let us not delay; withdraw and choose your commanders at once’”; example borrowed from Pompei 2006:366). In examples (6), (7) and (8) we are dealing with the first, appositive type.

<sup>17</sup> In the light of examples such as (2) and (3), it seems likely that this process had already taken place in Archaic Greek, albeit to a limited extent.

<sup>18</sup> This is not to say that HAVE-possession and BE-possession are semantically equivalent. See e.g. Langacker (2009:89) on this point, who characterizes the possessor as a ‘reference point’ and that

---

which is possessed as a ‘target’: “the two kinds of possessive clauses differ as to which facet of the overall relationship they single out for profiling – that of R [reference point] controlling T [target] (minimally in the passive sense of providing mental access to T) [i.e. HAVE-possession], or that of T being located in the region R controls (whether actively or passively) [i.e. BE-possession]”.

<sup>19</sup> Note that this phrase is based on Latin *arborem fici habebat quidam plantatam* (Lc. 13.6). Compare also Greek συκῆν εἶχέν τις πεφυτευμένην.

<sup>20</sup> Interestingly, in some Ancient Greek authors we find structurally similar constructions (*contra* Moser 1988:239), as in (σανίδας) ἀναπεπταμένας ἔχον ἄνδρες (Hom., *Il.* 122) “men held (the gate) open(ed)”; ὁ μὲν καταργυρωμένους, ὁ δὲ κατακεχρυσωμένους ἔχων τοὺς προμαχεῶνας (Hdt. 1.98.6) “the two last (circles) have their battlements one of them overlaid with silver and the other with gold”. In Classical Greek, however, such examples remain marginal. Only in Post-classical Greek, the construction becomes more frequent.

<sup>21</sup> Smith (2007:257) for example suggests that the process of HAVE and BE-auxiliarization would be “similar, or even the same” in all languages where such forms develop.

<sup>22</sup> Perhaps this situatedness is least clear with the existential use of εἶμι. With Langacker (2009:98), I take it that an existential predication can be looked upon as a ‘generalized, maximally schematic locative specification’: “the existential predication implies that it can in principle be found, that if you were able to look everywhere you would find it somewhere, but does not itself do anything to narrow down the region of search”.

<sup>23</sup> ‘Telic’ verbs (or more correctly predicates) refer to an event that has a natural endpoint or τέλος (e.g. ‘to eat a cake’, ‘to arrive’, ‘to write a book’). Contrast with a-telic verbs such as ‘to walk’, ‘to swim’, ‘to have’.

<sup>24</sup> The earlier studies of Wackernagel (1953[1904]) and Chantraine (1927) heavily emphasize the presence of an (affected) accusative object, characterizing the overall development of the perfect in terms of a shift in focus of attention from the state of the subject to that of the object. In my view, it is more correct to say that there is an overall increase in transitivity, ‘participants’ and ‘affectedness of the object’ (only) being two key parameters (cf. note 6). As one of the referees notes, in our example (9) there is a particular emphasis on the subject as responsible for having corrupted the women.

<sup>25</sup> Perfects with this suffix can occasionally be found in Homer. In Archaic Greek, however, there was not yet a connection between the use of the -κ- suffix and transitivity. As noted by Kimball (1991:144): “in Homer then, the distribution of the -κ- seems entirely mechanical: it simply occurs after a long vowel and before an ending or suffix that begins with a vowel” (cf. also Duhoux 2000:400).

<sup>26</sup> According to Thielmann (1891:302), this primarily concerned aspirated perfects, which are still (relatively) infrequent in fifth-century Classical Greek (for some early examples in Herodotus, Sophocles, Lysias and Thucydides, see Ringe 1984:133). This accounts for the use of the construction

with verbs such as ἀπαλλάσσω “I set free” (ἀπαλλάξας ἔχω, Eur., *Tro.* 1150), ἐπιτρέπω “I turn to” (ἐπιτρέψαντες ἔχομεν, Hdt. 6.12.3), καταστρέφω “I overturn” (καταστρεφάμενος εἶχε, Hdt. 1.73.2), κηρύσσω “I announce” (κηρύξας ἔχω, Soph., *Ant.* 192), κρύπτω “I hide” (κρύψας ἔχεις, Eur., *Hec.* 1013) and ταραύσσω “I agitate” (ἔχεις ταραύξας, Soph., *Ant.* 794). Since, however, periphrastic constructions with these verbs only represent a minority of the examples (compare with Duhoux 2000:402, who notes that aspirated perfects represent between 1 to 3,5% of the total number of active synthetic perfects), I believe Thielmann has overestimated the importance of this category. Many of the verbs described by Aerts (1965:128-60) as not having an active synthetic perfect (in fifth-century Classical Greek, that is) do not belong to this type, e.g. ἐγκλῆω “I shut in” (ἐγκλήσας ἔχει, Aristoph., *Eccl.* 355), ποικίλλω “I embellish” (ποικίλας ἔχεις, Soph., *Trach.* 412) and σὺγχέω “I obliterate” ((ὅταν) σὺγχέας ἔχης, Eur., *Ion* 615).

<sup>27</sup> Some scholars have argued against the connection between the synthetic perfect (in its anterior function) and ἔχω with aorist participle. Rosén (1957:139), for example, believes we are dealing with a so-called ‘second aorist’ (in Herodotus, at least). He draws attention to passages such as Hdt. 1.41.1, where the periphrastic construction is co-ordinated with a synthetic aorist. As Keil (1963:47) points out, however, such co-ordination does not prove anything (on this Herodotean passage, see also Thielmann 1891:300). Porter (1989:489), on the other hand, refutes the connection between the two on the basis of the fact that the notion of ‘resultative perfect’ (in the Wackernagel-Chantraine sense), which is central in most of the older accounts, is problematic (see note 24). Of course, this is not an argument against the connection between the synthetic perfect and the periphrastic construction *in se*.

<sup>28</sup> Some examples (cf. also Thielmann 1891:303; Aerts 1965:128-60) would be ἀποδηλόω “I make manifest” (ἀποδηλώσας ἔχει, Soph., *Fragm.* 581), ἀποσπάω “I drag away from” (ἀποσπάσας ἔχω, Eur., *Hel.* 413), μανθάνω “I learn” (ἔχω μαθόν, Soph., *Ant.* 1272) and νικάω “I conquer” (νικήσας ἔχω, Soph., *Fragm.* 41).

<sup>29</sup> Porter (1989:490), on the other hand, believes that “it is linguistically implausible to posit the use of ἔχω in periphrastic constructions in Classical Greek”, but his argumentation is unconvincing. Kühner & Gerth (1976[1904]:61) maintain that the periphrastic construction “drückt überall den aus der einmaligen Handlung hervorgegangenen dauernden Zustand aus, wie im Lateinischen habere mit dem Partizipe Perfecti Passivi, als *aliquid petractum habeo*” (in other words, the construction would always be used with a resultative aspectual function), but this claim is too strong.

<sup>30</sup> In a number of other examples too (i.e. not occurring in the imperative), the context seems to indicate that the combination of ἔχω with an aorist participle must be taken with a resultative-like value, comparable to HAVE + object + passive perfect participle. See e.g. σκότῳ κρύψας ἔχει (Eur., *Fragm.* 1132) “he keeps her hidden in the dark”; ξίφος σπάσαντ’ ἔχειν (Eur., *Or.* 1193-4) “to hold the sword drawn”; γλῶσσαν ἐγκλήσας ἔχει (Soph., *Ant.* 180) “he keeps his lips locked”; ἀφελομένη ἔχει (Thuc. 6.39.2) “she has (the goods) taken away”.



---

<sup>31</sup> Note, however, that this example is ambiguous: a non-periphrastic interpretation, taking εἰρημένον with ἔπος “if these words that had been uttered really referred to the Athenians”, seems possible as well. Another passage which is often mentioned as passive periphrastic (see e.g. Aerts 1965:158) is ὥς ἔχοντο Κροῖσος ζωγρηθείς (Hdt. 1.83.1) “that Croesus had been captured”.

<sup>32</sup> Note, however, that there are some examples of εἰμί with the active perfect participle which do seem to be more transitive (e.g. with ἀπόλλυμι “I destroy” in Hdt. 3.64.2).

<sup>33</sup> See e.g. Pouilloux (1957:12, 18): “la périphrase verbale marque la rupture de l’ εὐκοσμία, l’ordre du monde avec lequel les hommes se doivent de découvrir un accord, une harmonie. Où paraît cette expression rare, se révèle une faute des hommes”; “une notion de faute ou de responsabilité transparait constamment derrière cette forme verbale si rarement employée”.

<sup>34</sup> On the close connection between perfect (anterior) and possession, see e.g. Benveniste (1960:127): “que le parfait soit dans ces langues lié à l’emploi des auxiliaires être et avoir, qu’il n’ait pas d’autre expression possible que être ou avoir avec le participe passé du verbe, et que cette forme périphrastique constitue une conjugaison complète, c’est là un ensemble de traits qui éclairent la nature profonde du parfait. *C’est une forme où la notion d’état, associée à celle de possession, est mise au compte de l’auteur de l’action; le parfait présente l’auteur comme possesseur de l’accomplissement* [my emphasis]”.

<sup>35</sup> This type of construction occurs particularly often in Herodotus. See e.g. Hdt. 1.153.1, 2.48.2, 2.82.1, 2.95.1, 3.60.1, 4.32.1, 4.165.2, 5.61.2, 8.46.1, 8.61.2, 8.110.2, 9.26.7, 9.27.5, 9.75.1 etc. I would argue that in some of these examples, we are dealing with an anterior perfect.

<sup>36</sup> Somewhat confusingly, the term ‘stative’ is used in the literature both in reference to lexical aspect (or *Aktionsart*) and grammatical aspect (see Bentein 2012b:6, fn. 13 for further discussion and references). When referring to ‘stative’ in the former sense, I use the term ‘lexically stative’.

<sup>37</sup> Past research has dedicated very little attention to these forms, which were classified as non-periphrastic (being instances of so-called ‘adjectival periphrasis’, cf. Björck 1940; Aerts 1965). Without further discussing this matter here, I believe the traditional view is too simplistic.

<sup>38</sup> One of the referees notes that ὑπάρχοντα may well be taken as a noun, meaning “possessions”. While this is indeed a common substantivization, I do not consider it likely for this particular case. With Liddell & Scott (1968:4), who explicitly refer to Lys. 13.91, I interpret (τὰ) ἀγαθὰ as “wealth” (cf. also Alexander 1883:301).

<sup>39</sup> This is not to say that there are no borderline cases. In terms of transitivity, an example such as ἦσαν δὲ Πηδασεεὺς οἰκέοντες ὑπὲρ Ἀλικαρνησσοῦ μεσόγαιαν (Hdt. 1.175.1) “the Pedaseans were dwelling inland above Halicarnassus” scores low on the parameter of (lexical) aspect (οἰκέω “I live” denoting an event of indefinite duration), but higher on that of volitionality.

---

<sup>40</sup> Dik (1989:190) describes phasal aspect in terms of the following schema: “what can be said on the basis of information available at some reference point  $t_i$  about the occurrence of some SoA [*state of affairs*] at some interval  $t_j$  (where  $t_j$  may or may not overlap with  $t_i$ )?”.

<sup>41</sup> Porter (1989:476): “the Perfect has its own set of periphrastic forms, used for emphatic contrast or in place of obsolete simple forms, thus under this theory leaving the Aorist without an equivalent periphrasis and the Perfect with an unnecessary duplicate set of forms to serve the same function”.

<sup>42</sup> Note that some editors prefer *περίεσθαι*, which destroys the periphrasis.

<sup>43</sup> One of the referees notes that “a primary aorist (if it existed) would designate a (single) event completed within the moment of speech. This is virtually an *adynaton*”. There is indeed a semantic tension between the features of perfective aspect and present tense, though with Bary (2009:126) it should be pointed out that “from a semantic perspective the combination is not completely impossible”. Langacker (2008:158-60, 534-5) discerns the following uses of present perfectives in English (a language whose aspectual system is admittedly differently organized): (i) the performative use (e.g. ‘I promise to look into this’); (ii) the ‘scheduled future’ (e.g. ‘I leave tomorrow’); (iii) the historical present (e.g. ‘at this point, he sees them’); (iv) generics/habituals (e.g. ‘they eat cake every day’).

<sup>44</sup> In a second example (*ἐξαρκέσας ἦν Ζεὺς ὁ τιμωρούμενος* (Eur., *Suppl.* 511) “Zeus the punisher was enough”) we also find the aorist participle used with a lexically stative verb, but here the ingressive value is even less clear. Aerts (1965:34) invokes metrical reasons for the use of the aorist periphrasis.

<sup>45</sup> One of the referees notes that *προδείσας εἰμί* “is certainly not a ‘tragic aorist’ since tragic aorists only occur in the past tense because they are used to distance the speaker from the full force of the present tense performative (Lloyd 1999)”. It is true that tragic aorists typically possess four features ((i) use of a verb of judgement, emotion, saying, ordering or advising, (ii) use of the first person, (iii) use of the past tense, and (iv) use of aoristic aspect; cf. Bary 2009:122) and that the form *προδείσας εἰμί* displays only three of these. Lloyd’s (1999) account, which treats tragic aorists as ‘performatives’ (as in English ‘I hereby swear’) with a ‘distancing’ effect (compared to present tense performatives), convincingly explains the first two of these features, but does not specifically discuss how a ‘distancing effect’ relates to features (iii) and especially (iv) (compare Bary 2009:124: “it is not clear ... where this distancing effect of the tragic aorist comes from. Is it a contribution of the past tense or of the aoristic aspect feature?”). Bary’s (2009:121-32) recent account, which also takes the idea that tragic aorists can be analyzed in terms of performativity as its starting point, is more successful in explaining all four features. In brief, Bary argues that “a form for aoristic aspect and present tense ... would be the optimal form for performatives”, as they denote events that are completed at the time of speaking. In the absence of such a form, the language user could choose between two ‘sub-optimal’ forms. As Bary (2009:130) notes with reference to the act of swearing: “if ὅμνῃμι is chosen, the (present) tense feature is given primacy and the (imperfective) aspect is taken for granted, whereas if

---

ᾧμοσα is chosen, it is the other way around: the (aoristic) aspect feature gets primacy and the (past) tense is taken for granted”. From this perspective, the periphrastic form of εἰμί with aorist participle (not referred to by Bary), as in προδείσας εἰμί, represents a more optimal form as it allows the combination of the present tense and aoristic aspect (and hence is not as problematic as the referee suggests), though admittedly it never became successful.

<sup>46</sup> I concur with Aerts (1965:29), who notes that “non-periphrastic interpretation is not ... irrefutable, but is nevertheless the most obvious one”. ἀρχαῖος can be taken with φανείς: “put forth of old”, “put forth long ago”.

<sup>47</sup> Interestingly, we still find examples with resultative-like semantics. See e.g. τὰ γὰρ δὴ νοητὰ ζῶα πάντα ἐκεῖνο ἐν ἑαυτῷ περιλαβὼν ἔχει (Pl., *Tim.* 30c) “for this has/holds contained in itself all intelligible beings”.

<sup>48</sup> See e.g. Chantraine (1927:129): “en nouvel attique le parfait résultatif s’est très vite développé. Au iv<sup>e</sup> siècle, il est devenu un temps normal dans l’économie de la conjugaison. Tout verbe a tendu à se constituer un parfait”.

<sup>49</sup> See e.g. Moser (1988:229): “given that it has been established that the same function, that of denoting a state, appears at both ends of the continuum, Homeric and present-day Greek, and that the εἶμαι construction is the oldest of the periphrastic forms under investigation, it seems probable that it has always fulfilled this function”.

<sup>50</sup> This tendency is particularly clear in Demosthenes, where one quarter (32/120) of the examples occur in a person other than the third (see Bentein 2012a:31).

<sup>51</sup> Bentein (2012b:36), for example, has suggested that τυγχάνω with present participle can be considered a ‘focality’-increasing construction.

<sup>52</sup> Note that the Teubner edition by Hude prefers the perfect form κατακεκονότες ἔσσεσθε, *contra* Gildersleeve (1980[1900]:126) among others.

<sup>53</sup> The possibility of such a diachronic process is also raised by Hopper & Thompson (1980:279), who suggest that “a pervasive structural-semantic feature like that presented above [i.e. transitivity] might be expected to play a role in language change”.

<sup>54</sup> One of the referees finds it “a priori not very likely that a construction with a transitive verb like ἔχω (+ aor. part.) scores lower in transitivity than a construction with an intransitive verb like εἰμί”. I believe the referee is right in drawing attention to the source meaning of the finite verbs in question: as studies on auxiliarization have shown, elements of the source meaning are often maintained (compare also my observations in §2.2.1 on the semantic difference between ἔχω with aorist participle and εἰμί with perfect participle when used with an anterior function). However, we must not forget that we are dealing with *constructions* here, consisting of both a finite verb and a participle.

<sup>55</sup> In this figure, I use a partly broken line for the development of εἰμί with present participle, to indicate that its use as a progressive was still rather infrequent, and a fully broken line for εἰμί with

---

aorist participle, to indicate that while its different functions could be put on the transitivity-continuum, it is unclear to me to what extent we can speak of an actual diachronic development.